# CLAIMS

What is claimed is:

**1.** A pressure-vent hurricane shutter comprising:

at least one shutter framework encompassing slatted-louver apertures;

said shutter framework including structural beams to which ends of slanted slats for the slatted-louver apertures are affixed;

slat-support guides oriented vertically and having ends attached to horizontal portions of said spacer;

slat-support cover affixed to one slat-support guide;

mullion slat-support cover affixed to at least two adjacent slat-support guides;

said structural beams on said shutter framework affixed to the outside edge of said slat-support guides;

the slanted slats having inward edges that are oriented orthogonally to the mullion slat-support covers;

the slanted slats having outward edges that are oriented orthogonally to the slat-support guides;

the inward edges intermediate the ends of the slanted slats being attached to the mullion slat-support covers;

the outward edges intermediate the ends of the slanted slats being attached

to the slat-support guides;

at least one shutter hinge proximate at least one edge of the shutter framework;

the shutter framework being hinged to at least one structural member of a building proximate a building aperture;

the shutter framework, the slanted slats, the slat-support guides, the hinge and inter-structural attachments thereof having a structural composite that has at least predetermined requisite strength for shutter-related protection of the building against storm-borne objects, wind and rain; and

the slatted-louver apertures having predetermined venting of storm buildups and bursts of pressure and vacuum that react on buildings.

**2.** The pressure-vent hurricane shutter of claim 1 wherein:

the structural beams included in the shutter framework are structural metal tubes having a cross section that is rectangular; and

a metal of which the structural metal tubes are made has predetermined material strength, rigidity, thickness and structure for the shutter framework to have the structural composite with at least the requisite strength for shutter-related protection of the building against storm-borne objects, wind and rain.

**3.** The pressure-vent hurricane shutter of claim 1 wherein:

the structural beams included in the shutter framework are structural aluminum tubes having a cross section that is rectangular with face walls being about one to two inches wide and orthogonal edge walls being about one and one-half inches wide;

the face walls and the edge walls being about one-eighth of an inch thick;

the metal of the structural aluminum tubes being aluminum alloy 6063-T52 or at least a substantial equivalent thereof; and

the structural beams of the shutter framework are affixed together at joining edges.

**4.** The pressure-vent hurricane shutter of claim 1 wherein:

the slanted slats include structural flat-bar metal having a cross section that is rectangular; and

a metal of which the slanted slats are made has predetermined material strength, rigidity, thickness and structure for the slanted slats to have the structural composite with at least the requisite strength for slatted-louver protection of the building against storm-borne objects, wind and rain.

**5.** The pressure-vent hurricane shutter of claim 1 wherein:

the slanted slats are structural aluminum flat bar having a cross section that is rectangular with face walls being about one inch wide and edge walls being about one-quarter of an inch wide;

the slanted slats being about one-quarter of an inch thick;

the metal of the slanted slats being aluminum alloy 6063-T52 or at least a substantial equivalent thereof;

the ends of the slanted slats are affixed to the shutter framework;

the inward edges of the slanted slats are affixed to the slat-support covers; and

the outward edges of the slanted slats are affixed to the slat-support guides.

**6.** The pressure-vent hurricane shutter of claim 1 wherein:

the face walls of the slanted slats are spaced apart about one-half inch orthogonally; and

the slanted slats are juxtaposed vertically with dihedral angels of the face walls and dihedral angles of the edge walls being horizontal.

**7.** The pressure-vent hurricane shutter of claim 1 wherein:

hold down tabs are affixed to horizontal portions of the shutter framework;

said hold down tabs have a hole in which a screw of a predetermined size can be inserted; and

said hold down tabs are made of a metal of predetermined material strength, rigidity, thickness and structure for the shutter framework to have the structural composite with at least the requisite strength for shutter-related protection of the building against storm-borne objects, wind and rain.

**8.** The pressure-vent hurricane shutter of claim 1 wherein:

the shutter hinge is ribbed.

**9.** The pressure-vent hurricane shutter of claim 1 wherein:

the shutter framework is a Bahama Shutter having top-hinge with which it is hinged to the structural member of the building proximate the building aperture.

**10.** The pressure-vent hurricane shutter of claim 1 wherein:

the shutter framework is a Colonial Shutter having side-hinges with which it is hinged to sides of the structural member of the building proximate the building aperture.

**11.** The pressure-vent hurricane shutter of claim 1 wherein:

the structural member of a proximate a building aperture has a hole corresponding to the location of the hold down tabs.

**12.** The pressure-vent hurricane shutter of claim 1 wherein:

said slat-support guides have a front wall, two side walls, and a back wall joined together along longitudinal edges of the walls;

the slat-support guides are structural aluminum alloy 6063-T52 or at least a substantial equivalent thereof;

said slat-support guide front and back walls having rectangular cross sections with a width of about one inch and a thickness of about one-eighth inch;

said slat-support guide side walls having rectangular cross sections with a width of about one-half inch and a thickness of about one-eighth inch;

said slat-support guide side walls having slots distributed evenly to correspond with shape, size, and direction of slanted slats;

said slat-support guides have ends which are affixed to the shutter framework;

said front wall of slat-support guide affixed to outward edges of slanted slats;

said back wall of slat-support cover affixed to inward edges of slanted

slats; and

said slat-support guides have the appearance of mullions.

**13.** The pressure-vent hurricane shutter of claim 1 wherein:

the shutter framework is sized, shaped-hinge attachment to a top of the structural member of the building proximate the building aperture.

**14.** A pressure-vent hurricane shutter comprising:

at least one shutter framework encompassing slatted-louver apertures;

the shutter framework is a Bahama Shutter having top-hinge attachment to a top of the structural member of the building proximate the building aperture;

the shutter framework including structural beams to which ends of slanted slats for the slatted-louver apertures are affixed and to which ends of slat-support guides are attached orthogonally to the slanted slats intermediate the ends of the inward and outward edges of the slanted slats;

the shutter framework, the slats, slat-support guides, the hinge and inter-structural attachments thereof having a structural composite that has at least predetermined strength for shutter-related protection of the building against storm-borne objects, wind and rain;

the slatted-louver apertures having predetermined venting of storm

buildups and bursts of pressure and vacuum that react on buildings;

the structural beams included in the shutter framework are structural metal tubes having a cross section that is rectangular; and

a metal of which the structural metal tubes are made has predetermined material strength, rigidity, thickness and structure for the shutter framework to have the structural composite with at least the predetermined strength for shutter-related protection of the building against storm-borne objects, wind and rain.

**15.** The pressure-vent hurricane shutter of claim 14 wherein:

the structural beams included in the shutter framework are structural aluminum tubes having a cross section that is rectangular with face walls being about one to two inches wide and orthogonal edge walls being about one and one-half inches wide;

the face walls and the edge walls being about one-eighth of an inch thick;

the metal of the structural aluminum tubes being aluminum alloy 6063-T52 or at least a substantial equivalent thereof;

the structural beams of the shutter framework are affixed together at joining edges;

the slanted slats include structural flat-bar metal have a cross section that is rectangular;

a metal of which the slanted slats are made has predetermined material strength, rigidity, thickness and structure for the slanted slats to have the structural composite with at least the predetermined strength for slatted-louver protection of the building against storm-borne objects, wind and rain;

the slanted slats are structural aluminum flat bar having a cross section that is rectangular with face walls being about one inch wide and edge walls being about one-quarter inch wide;

the slanted slats being about one-quarter inch thick;

the metal of the slanted slats being aluminum alloy 6063-T52 or at least a substantial equivalent thereof;

the ends of the slanted slats are affixed to the shutter framework;

the slat-support guides are structural aluminum alloy 6063-T52;

the slat-support guides have ends which are affixed to the shutter framework; and

the inward edges of the slanted slats are affixed to the front wall of the slat-support guides.

**16.** The pressure-vent hurricane shutter of claim 14 wherein:

the face walls of the slanted slats are spaced apart about one-half inch orthogonally; and

the slanted slats are juxtaposed vertically with dihedral angles of the face walls and dihedral angles of the edge walls being horizontal.

**17.** The pressure-vent hurricane shutter of claim 14 wherein:

hold down tabs are affixed to bottom portion of horizontal shutter framework;

said hold down tabs have a hole in which a screw of a predetermined size can be inserted; and

said hold down tabs are made of a metal of predetermined material strength, rigidity, thickness and structure for the shutter framework to have the structural composite with at least the requisite strength for shutter-related protection of the building against storm-borne objects, wind and rain.

**18.** The pressure-vent hurricane shutter of claim 14 wherein:

the hinge is ribbed.

**19.** The pressure-vent hurricane shutter of claim 14 wherein:

the structural member of a proximate a building aperture has a hole corresponding to the location of the hold down tabs.

**20.** The pressure-vent hurricane shutter of claim 14 wherein:

said slat-support guides have a front wall, two side walls, and a back wall joined together along longitudinal edges of the walls;

the slat-support guides are structural aluminum alloy 6063-T52 or at least a substantial equivalent thereof;

said slat-support guide front and back walls having rectangular cross sections with a width of about one inch and a thickness of about one-eighth inch;

said slat-support guide side walls having rectangular cross sections with a width of about one-half inch and a thickness of about one-eighth inch;

said slat-support guide side walls having slots distributed evenly to correspond with shape, size, and direction of slanted slats;

said front wall of slat-support guide affixed to outward edges of slanted slats;

said back wall of slat-support guide affixed to inward edges of slanted slats;

said slat-support guides have ends which are affixed to the shutter framework; and

said slat-support guides have the appearance of mullions.

**21.** A pressure-vent hurricane shutter comprising:

at least one shutter framework encompassing slatted-louver apertures;

the shutter framework is a Colonial Shutter having side-hinge attachment to sides of the structural member of the building proximate the building aperture;

the shutter framework including structural beams to which ends of slanted slats for the slatted-louver apertures are affixed and to which ends of slat-support guides are attached orthogonally to the slanted slats intermediate the ends of inward edges of the slanted slats;

the shutter framework, the slats, the slat-support guides, the hinge and inter-structural attachments thereof having a structural composite that has at least predetermined strength for shutter-related protection of the building against storm-borne objects, wind and rain;

the slatted-louver apertures having predetermined venting of storm buildups and bursts of pressure and vacuum that react on buildings;

the structural beams included in the shutter framework are structural metal tubes having a cross section that is rectangular; and

a metal of which the structural metal tubes are made has predetermined material strength, rigidity, thickness and structure for the shutter framework to have the structural composite with at least the predetermined strength for shutter-related protection of the building against storm-borne objects, wind and rain.

**22.** The pressure-vent hurricane shutter of claim 21 wherein:

the structural beams included in the shutter framework are structural aluminum tubes having a cross section that is rectangular with face walls being about one to two inches wide and orthogonal edge walls being about one and one-half inches wide;

the face walls and the edge walls being about one-eighth of an inch thick;

the metal of the structural aluminum tubes being aluminum alloy 6063-T52 or at least a substantial equivalent thereof;

the structural beams of the shutter framework are affixed together at joining edges;

the slanted slats include structural flat-bar metal have a cross section that is

rectangular;

a metal of which the slanted slats are made has predetermined material strength, rigidity, thickness and structure for the slanted slats to have the structural composite with at least the predetermined strength for slatted-louver protection of the building against storm-borne objects, wind and rain;

the slanted slats are structural aluminum flat bar having a cross section that is rectangular with face walls being about one inch wide and edge walls being about one-quarter of an inch wide;

the slanted slats being about one-quarter of an inch thick;

the metal of the slanted slats being aluminum alloy 6063-T52 or at least a substantial equivalent thereof;

the ends of the slanted slats are affixed to the shutter framework;

the slat-support guides are structural aluminum alloy 6063-T52 or at least a substantial equivalent thereof having rectangular cross section with a width of about one inch and a thickness of about one-eighth inch;

the slat-support guides have ends which are affixed to the shutter framework; and

the inward edges of the slanted slats are affixed to the slat-support guides.

**23.** The pressure-vent hurricane shutter of claim 21 wherein:

the face walls of the slanted slats are spaced apart about one-half inch orthogonally; and

the slanted slats are juxtaposed vertically with dihedral angles of the face walls and dihedral angles of the edge walls being horizontal.

**24.** The pressure-vent hurricane shutter of claim 21 wherein:

hold down tabs are affixed to top and bottom portions of horizontal shutter framework;

said hold down tabs have a hole in which a screw of a predetermined size can be inserted; and

said hold down tabs are made of a metal of predetermined material strength, rigidity, thickness and structure for the shutter framework to have the structural composite with at least the requisite strength for shutter-related protection of the building against storm-borne objects, wind and rain.

**25.** The pressure-vent hurricane shutter of claim 21 wherein:

the side-hinge is ribbed.

**26.** The pressure-vent hurricane shutter of claim 21 wherein:

the structural member of a proximate a building aperture has a hole corresponding to the location of the hold down tabs.

**27.** The pressure-vent hurricane shutter of claim 21 wherein:

said slat-support guides have a front wall, two side walls, and a back wall joined together along longitudinal edges of the walls;

the slat-support guides are structural aluminum alloy 6063-T52 or at least a substantial equivalent thereof;

said slat-support guide front and back walls having rectangular cross

sections with a width of about one inch and a thickness of about one-eighth inch;

said slat-support guide side walls having rectangular cross sections with a width of about one-half inch and a thickness of about one-eighth inch;

said slat-support guide side walls having slots distributed evenly to correspond with shape, size, and direction of slanted slats;

said front wall of slat-support guide affixed to outward edges of slanted slats;

said back wall of slat-support guide affixed to inward edges of slanted slats;

said slat-support guides have ends which are affixed to the shutter framework; and

the slat-support guides have the appearance of mullions.